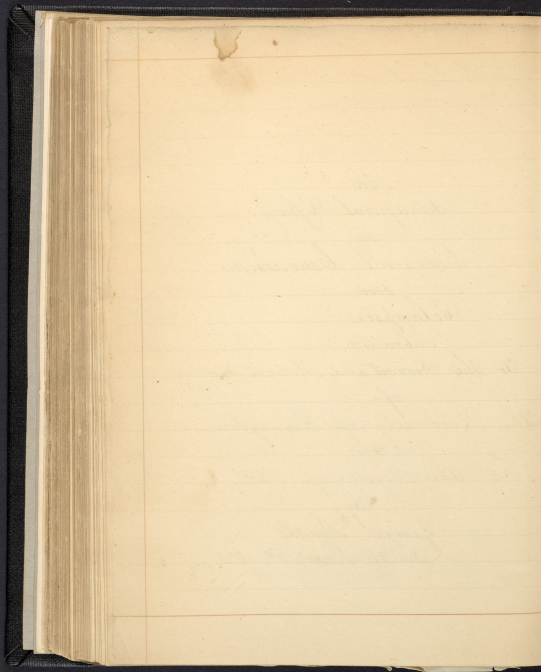


Vol. 10, No. 1, 1822

An
Inaugural Essay
on
Cerebral Convulsions
and
Clampsia
Submitted
To the Provost and Medical Faculty
of
The University of Pennsylvania
for
The Degree of M.D.

By
George Smith
admitted March 6th 1822 -
1824 11th



It is with the utmost diffidence, & highest
 sense of incompetency, I address a body
 of men so far my superiors; & particularly
 on the subject of a disease, on which there
 is so much discrepancy in the opinions of the
 medical world, as regards its treatment.

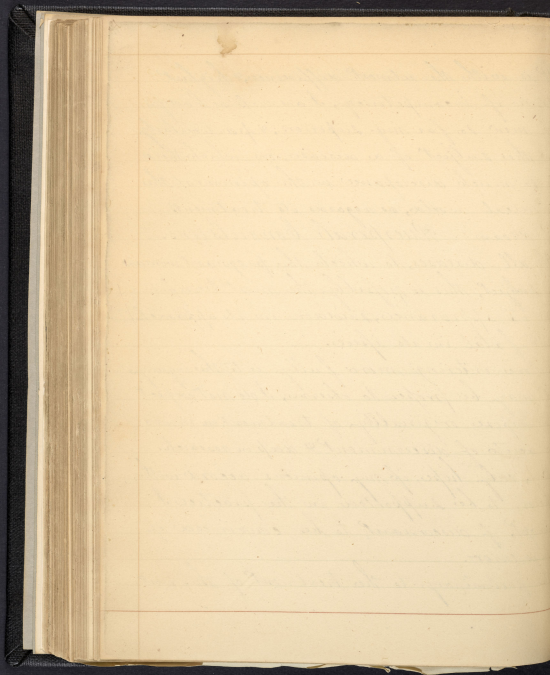
I mean Puerperal Convulsions.

Of all diseases, to which the pregnant woman
 is subject, this is possibly the most terrific
 in its appearance, & sudden in its approach,
 and fatal in its issue.

Before entering more fully into the inquiry,
 it may be proper to observe, I do not expect
 to impose originality of treatment, on minds
 so acute of discernment & deep in research.

But, only hope, if my opinions accord with
 theirs, to be supported in the practice. I
 adopt, if discrepant, to be convinced of
 my error.

As preliminary to the treatment of this most

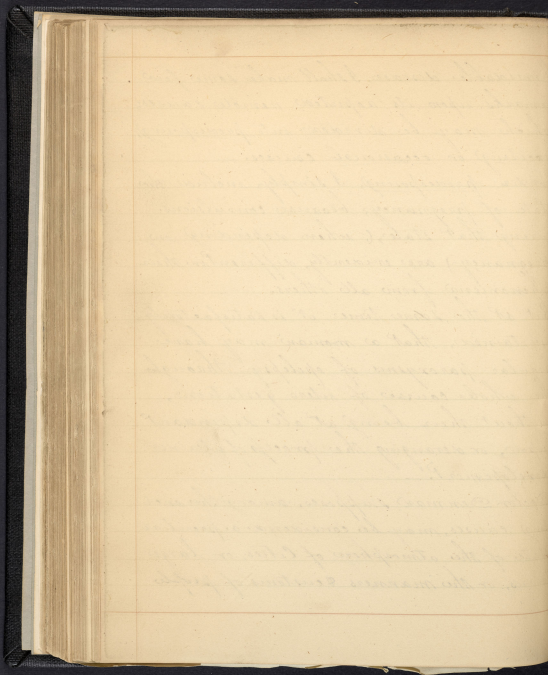


formidable disease, I shall make some few remarks upon its reputed remote causes; which may be divided into predisposing, exciting or occasional causes. —

Under predisposing, I simply include the state of pregnancy, because convulsions during that state, (when depending on pregnancy) are evidently different in their phenomena from all others. —

But at the same time it is satisfactorily ascertained, that a woman may have regular paroxysms of epilepsy through the whole course of utero gestation, without their being at all dependant upon, or deranging the process of uterine development. —

Doctor Denman supposes, among the exciting causes, may be considered a peculiar state of the atmosphere of Cities, or large towns, or the manners & customs of people



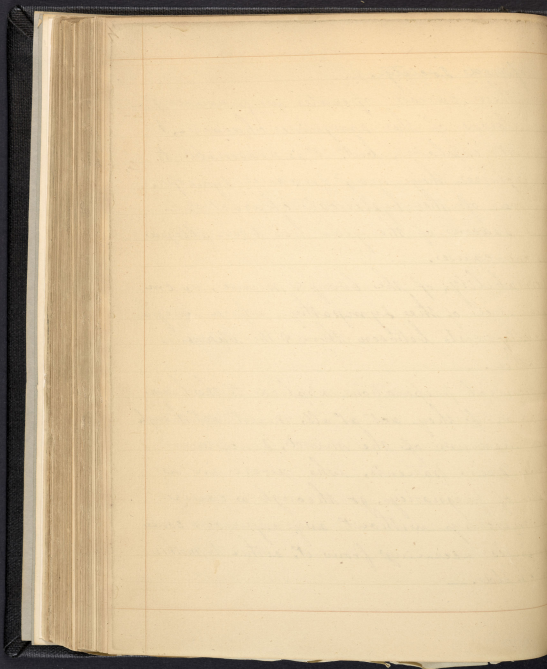
of refined society. —

How these causes operate in producing convulsions of the sanguine character, I cannot explain; but, it is reasonable to conjecture, they may produce syncope, or those of the hysterical character. —

The season of the year has been alleged as one cause. —

Irritability of the body & mind, in consequence of the sympathy, which unequally exists between them & the uterus, is another. —

Mercurial preparations applied to the head or hair, if they act at all, must act, through the medium of the mind, since we have seen patients, who were in a state of pregnancy, go through a course of mercury without any injurious consequences accruing from it, either to mother or child. —



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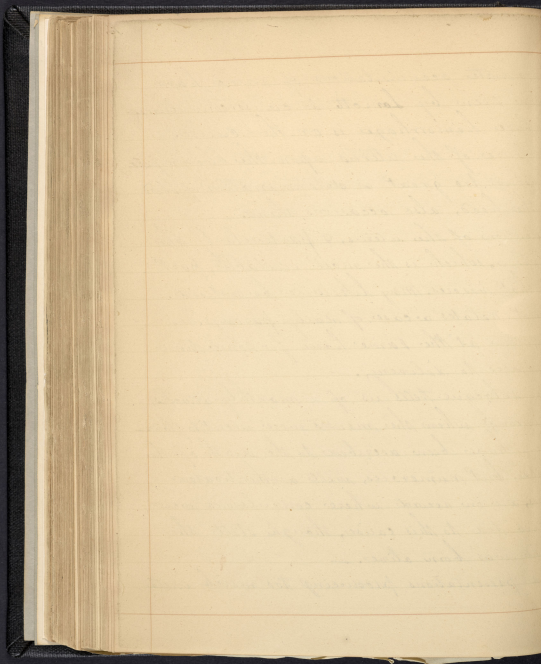
Inordinate accumulations of urine have been seen by Lamott to cause convulsions. — Profuse hemorrhage is another cause. — Pressure of the uterus upon the blood vessels, causing too great a determination of blood to the head, also occasions them. —

Distention of the uterus, & particularly the anterior, which is the most inevitable part of that viscus, may likewise be noticed. —

Lervet relates a case of daily paroxysms, occurring at the same hour for some time previous to delivery. —

Bauselaogue tells us of a monthly attack, occurring when the menses were wont to flow. — They have been ascribed to the death of the child, but numerous, well authenticated cases, are on record where convulsions were attributed to this cause, though, still the child was born alive. —

Bad presentations producing too much irrita

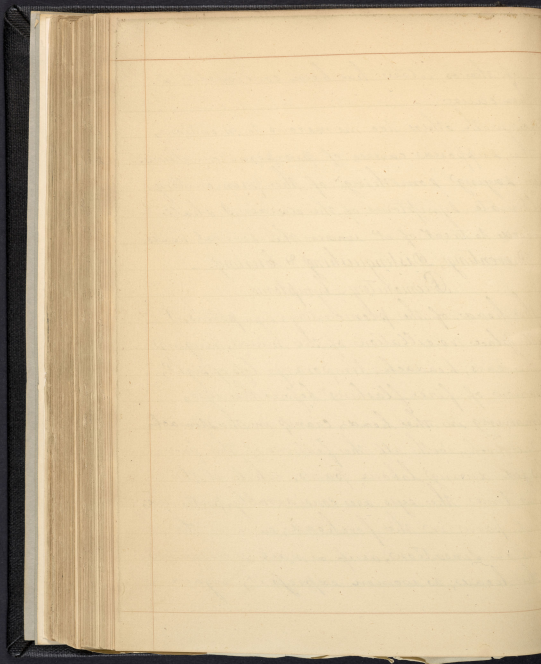


tion of the os uteri has been considered a further cause.

These, with others too numerous to mention, are the supposed causes of puerperal convulsions. After saying something of the premonitory & ultimate symptoms of the disease, I shall proceed to treat of it under the several heads of Preventing, Distinguishing & Curing.

Premonitory Symptoms.

At the head of the premonitory symptoms, I shall place vacillation of the mind, ringing in the ears, headache, temporary loss of sight, sensation of fire flashing before the eyes, swimming in the head, cramp in the stomach, swollen neck, with all the features of the face enlarged during labour pains, while at the same time the eyes are considerably protruded; violent pain in the forehead, causing the peculiar sensation, as if a nail were driven in the head, as women express it, rigour



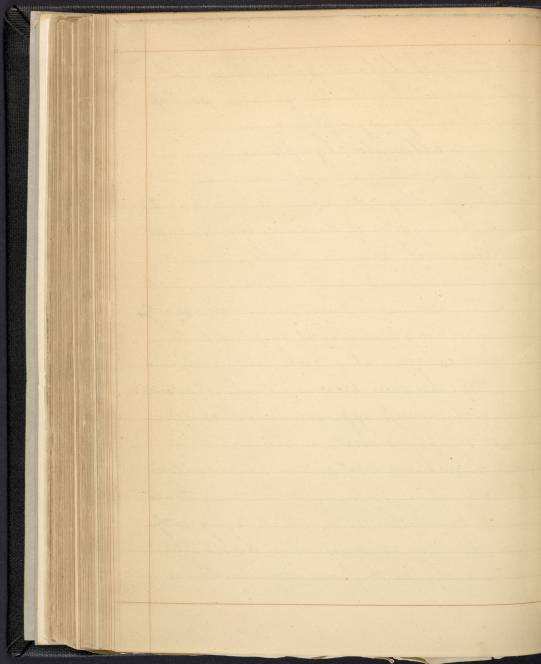
on the return of labour pains, these, if not all, are at least the greater part of the premonitory symptoms.—

Ultimate Symptoms.—

According to the experience of the most eminent men of the age, they are ushered in by repeated spasms of the muscles of the face, trunk, and extremities, which are sometimes more violent on one side, than the other.—

The eyes twitch with such incredible velocity, in every direction, it is almost impossible to follow their course; at which time, or immediately after, the face becomes flushed succeeded by a lividness approaching to blackness.—

While these symptoms exist, a peculiar noise is made, resembling what authors have called the spitting of a cat.—The tongue is thrust forward between the teeth, which is frequently surrounded by the contraction of the masseter muscles, and the froth from the mouth is



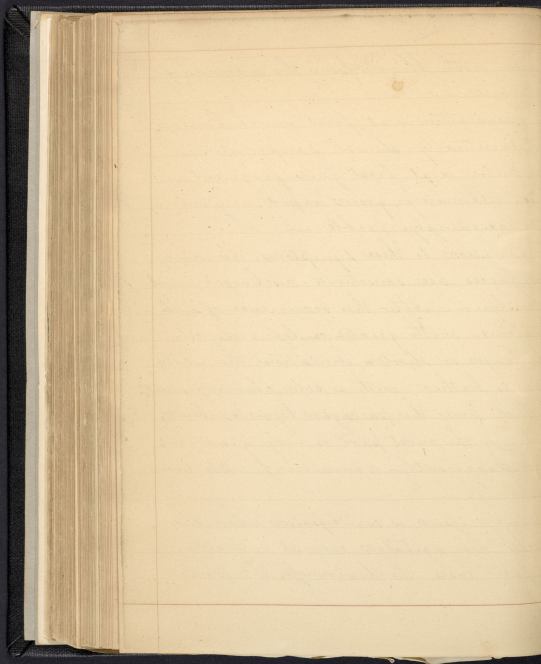
tinged with blood, from the wounds of the tongue. —

The respiration is at first much hurried, but eventually almost suspended. —

The pulse is at first full, frequent and tense, ultimately grows rapid, very small and exceedingly feeble. —

In addition to these symptoms, the urine and faeces are sometimes discharged involuntarily. — After the occurrence of such symptoms, with greater or less violence, with longer or shorter duration, the whole body is bathed with a cold clammy sweat; at which time the paroxysm begins to subside; which for the most part is very gradual; there frequently remaining a stertorous breathing. —

A happy issue is anticipated when the muscles are agitated only at intervals, the face loses its lividness, the pulse

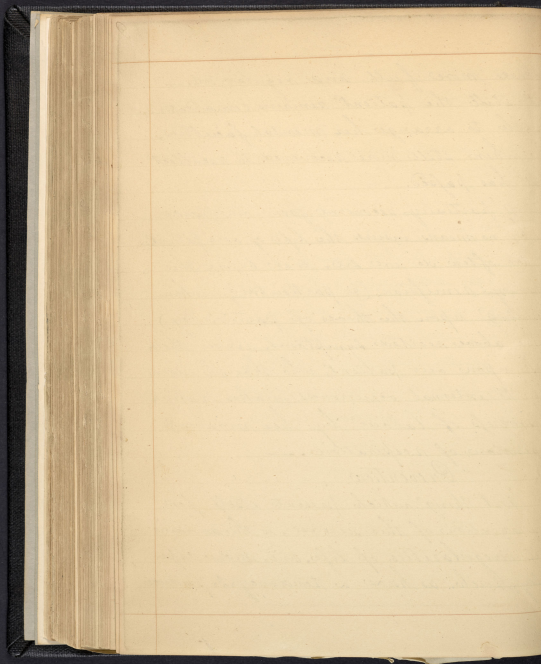


becomes more full and regular &c. —
 But still the patient remains comatose,
 unable to arrange her mental faculties,
 and when still more recovered to recollect
 what has passed. —

Having partially recovered from one parox-
 -ysm, by no means insure the life of our patient. —
 But too often do we see, even before this
 temporary remission, (& particularly, when
 depending upon the throes of parturition,) all the above recited symptoms, renew their
 attack upon our patient, who though insen-
 -sible to external occurrences, makes known
 the progress of labour by her moans &
 suspension of respiration. —

Prevention

The first thing which presents itself for
 the prevention of this disease, is the avoiding
 of all irregularities of life, and, more espe-
 -cially, such, as have a tendency to produce



plethora, or determination to the head. —

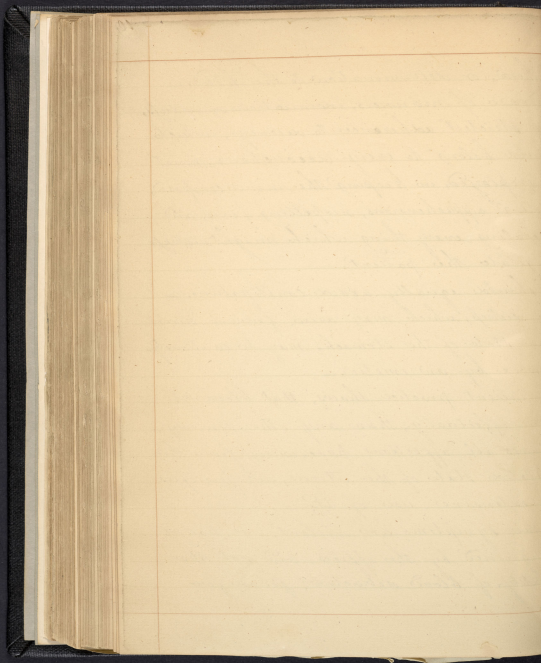
The ease of manners, insinuation of assents, and strictest adherence to decency; which should belong to every accoucheur, must be employed, in keeping the mind composed, quieting apprehensions, dispelling fears, and concealing every thing which might distress or agitate the patient. —

We should equally avoid constipation. —

Any distress, which may arise from a disordered state of the stomach, may be cautiously removed by an emetic. —

The present practice shows, that bleeding more effectually, than any other remedy, removes all affections proceeding from the irritated state of the uterus, and justifies the extensive use of it. —

If the symptoms are violent, we should be guided by the effects, and not the quantity of blood abstracted; for in few



cases were the patients too much debilitated to admit of full V.S. and, in these few cases, the temporal artery may be cut with decided advantage.

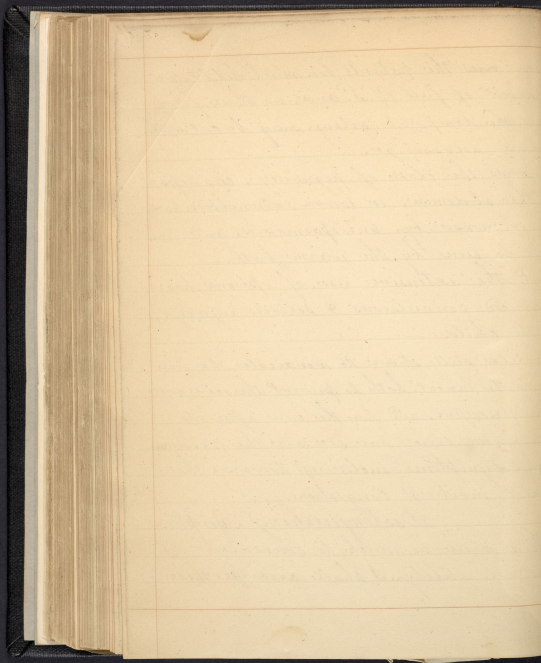
Towards the close of pregnancy, cramps of the abdomen, or lower extremities, have been removed by antispasmodics, and in their failure by the warm bath.

But the extensive use of opium has produced convulsions & serious injury to the child.

I would still strive to vindicate the free use of the lancet, both to prevent the occurrence of the paroxysm, and for the cure after its occurrence; since we see all the previous history symptoms inclining towards the head, & inviting congestion.

Distinguishing Symptoms

With a view as much to convenience, as practical utility, I shall arrange these



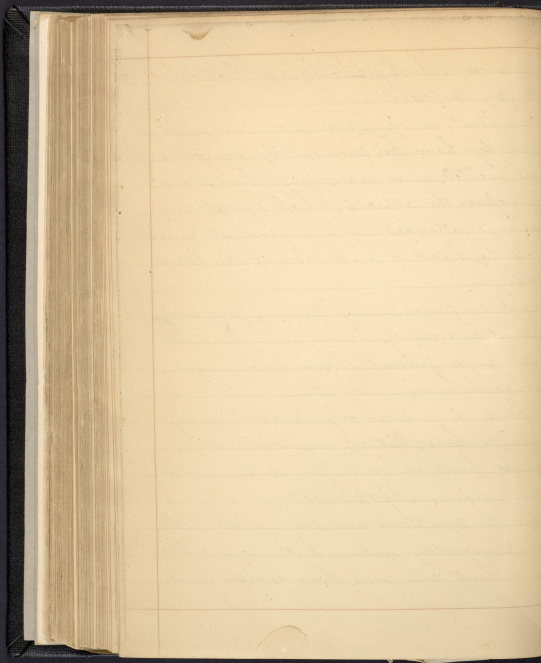
convulsions into Epileptic, Apoplectic,
and Hysterical. —

In the first, or epileptic species, we most
commonly have the premonitory symptoms,
above recited, or a majority of them, several
days before the attack, which symptoms
are always attended with a great determina-
tion to the head, & distension of the blood
vessels. —

It is not confined to any period of pregnancy,
but most commonly occurs after the sixth
month, and generally produces labour,
or is accompanied by it. —

This kind if judiciously treated, may
terminate here, but if injudiciously,
may be hurried on to the apoplectic or
second species. — Apoplectic

In this the symptoms are somewhat of the
same premonitory nature, but are much
more violent, and run their course in a

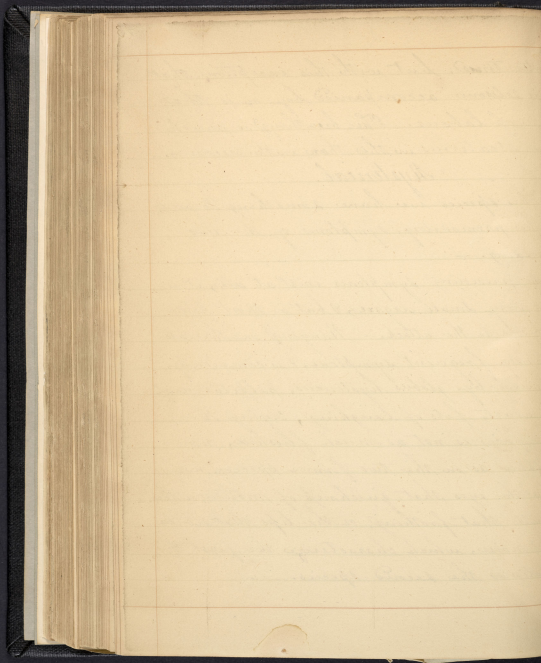


shorter time; but with this exception, that it is seldom accompanied by, or is the cause of labour. The breathing is much more stertorous in this than in the preceding.

Hysterical.

In this species we have something to add to the premonitory symptoms of the two preceding.

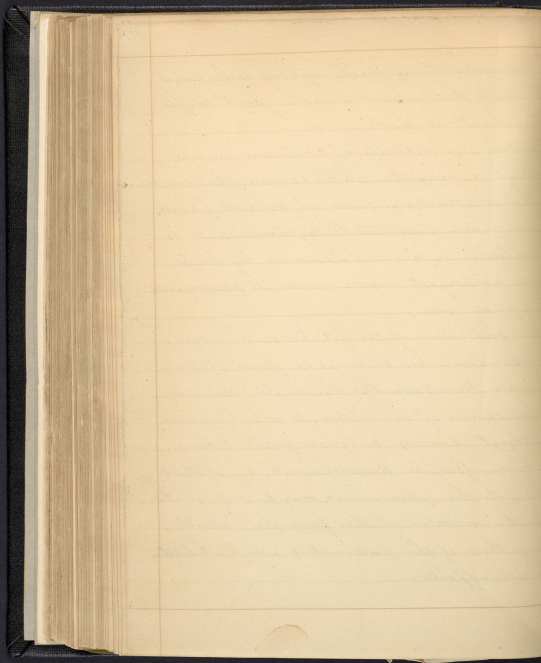
If the preceding symptoms exist at all, it is to a very small degree, & but a short time previous to the attack. — Ringing in the ears is a very frequent symptom, & is commonly attended by globus hystericus, palpitation of the heart, fits of laughing, & crying &c. — The face is not as much flushed, nor agitated as in the two former species, nor have the eyes that quickness of motion, or the mouth that frothing, or the lips that sibilating noise, which characterize the first & sometimes the second species. —



The muscles of the back appear to be more affected, & the patient is with great difficulty kept in bed. —

Her pulse and respiration continue more natural, during the whole course of the paroxysm. — This kind attacks women of delicate habits, who are much addicted to hysteria, and is very seldom or never followed by blindness, or imperfect vision, and its paroxysms are sooner over. —

On the subsidence of the fit, her senses return, and she covers her head as if from shame, after some time vacantly staring about the room. — Another species of convulsion, to which women are subject during pregnancy and labour, arises from profuse hemorrhage, & by a strict attention to the phenomena, may be distinguished. — In this the muscles of the face are violently, whereas those of the extremities are but little, if at all affected. —



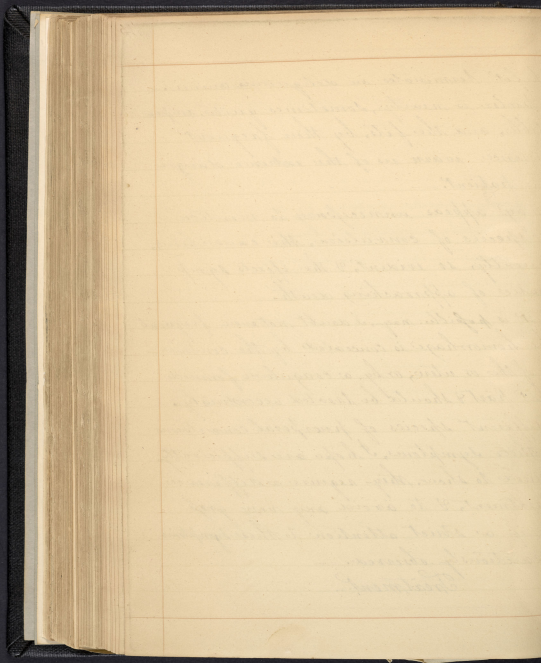
Each fit terminates in deliquium animi. —
The pulse is nearly, sometimes quite, imper-
ceptible, and the fits, by their frequent
recurrence warn us of the extreme danger
of our patient. —

It may appear unnecessary to mention
this species of convulsion, this cause being,
frequently so evident, & the effects symp-
tomatic of approaching death. —

But it is possible: nay, I doubt not even frequent-
ly the hemorrhage is concealed by the contrac-
tion of the os uteri, or by a coagulum formed
in that part & should be treated accordingly. —

The different species of puerperal convulsions
and their symptoms, I hope are sufficiently
explained to show, they require a difference
of treatment, & to avoid any very gross
error, if a strict attention to these symptoms
be cautiously observed. —

Treatment. —

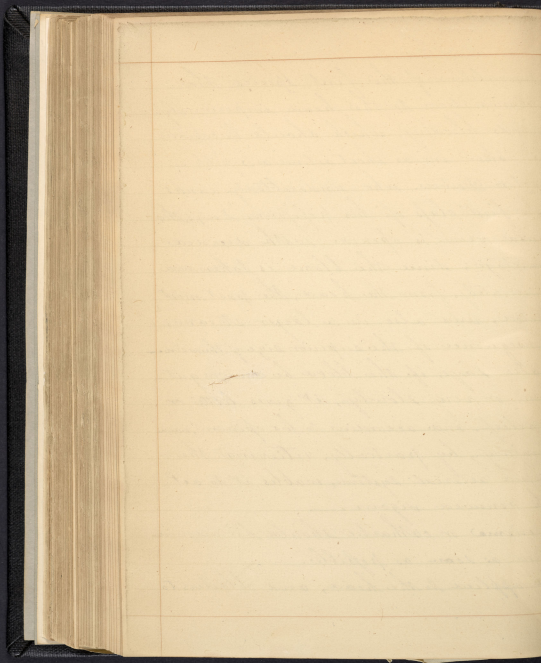


In convulsions of the first species the determination to the head imperiously demands bleeding, which should be copious and taken in as short a time as possible. —

Doctor Dewees, who undoubtedly ranks in the first class of his profession, says, the jugular vein is opened with decided advantage; since the blood is taken more immediately from the head, the part most affected, and also in a larger stream, in consequence of the superior size of the vein. — He also says, if the blood be drawn guttating or very slowly, it gives little or no relief, and according to his opinion, even an injury, by partially retieving the oppressed arterial system, enables it to act with renewed vigour. —

An enema or cathartic should be administered as soon as possible. —

Cold applied to the head, and blisters to



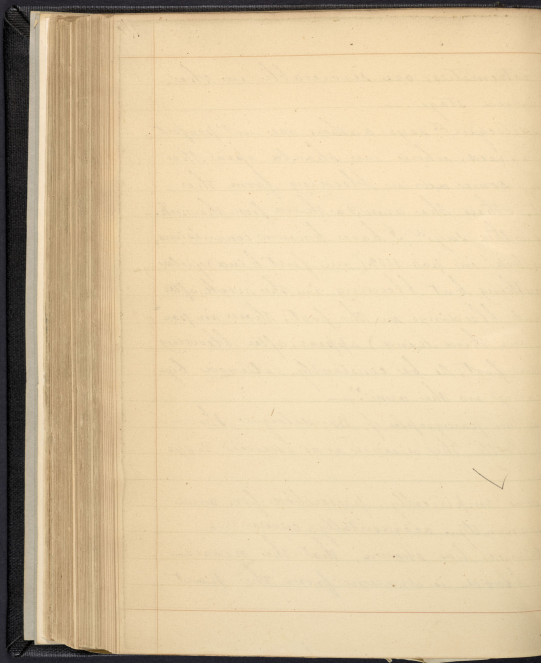
the extremities, are serviceable in the advanced stage. —

Baudelocque^{2d} says authors are not perfectly agreed, where we should open the vein; some advise bleeding from the foot; others the arm, & third from the neck. He further says⁴ "I have known convulsions, described in par. 1102. (our first kind) yield to nothing but bleeding in the neck, after several bleedings in the foot; those in par. 1103. (our third kind) appear, after bleeding in the foot, to be constantly relieved by bleeding in the arm." —

These two paragraphs of Baudelocque show how little the disease was reduced to dys-
=tem. —

It was empirically prescribed for, and consequently, accidentally, cured. —

Experience has shown, that the nearer the blood is drawn from the part



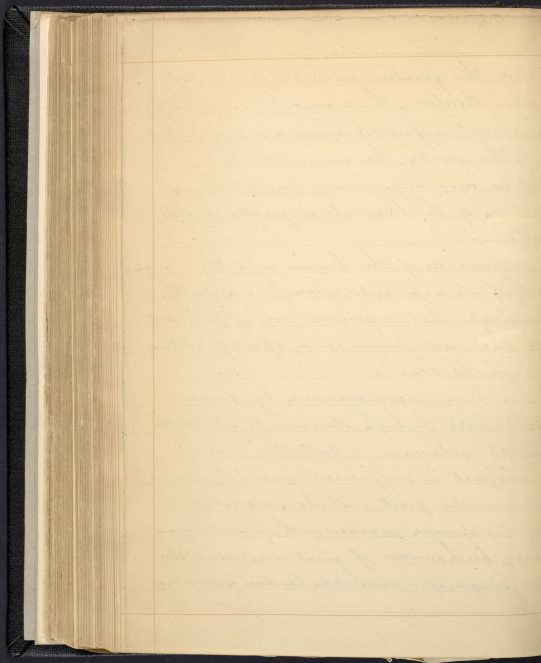
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affected the greater will be the relief afforded; therefore, the nearer the head (as the head is most affected) provided the vein be larger, the greater the advantages. —

Dissections invariably prove, the disorganised condition of the brain, to a greater or less extent. —

The importance of the brain, and the engagement of its vessels, (so often found) fully demonstrate the imperious use of the lancet; and the necessity of a speedy abstraction of blood. —

It has been recommended by some practitioners of high standing, to divide the temporal artery. — But this would not abstract a sufficient quantity of blood; in the first instance, according to the most approved practice of the present day. —

It may be however of great service in the latter stage, after venesection has been premised. —



After all this and the pulse is ~~reduced~~ too low for more copious bleeding, if the pain in the head remain, perhaps cups or leeches may be serviceable followed by a blister.

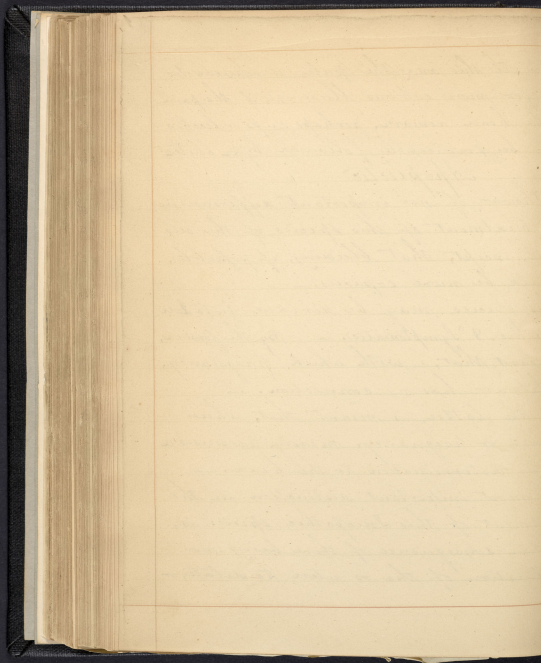
Apoplectic

We know of no important difference in the treatment of this species of the disease, except, that bleeding, if possible, should be more copious. —

This species may be divided into Idiopathic, & Symptomatic. — By the former, is meant, that, with which pregnancy or labour has no connection. —

By the latter, is meant that, where labour or pregnancy merely produces a strong determination to the head. —

The most important distinction in the treatment of this Idiopathic species is, that in consequence of there being no inclination of the os uteri to dilate, or



any other signs of labour, we should never attempt delivery. —

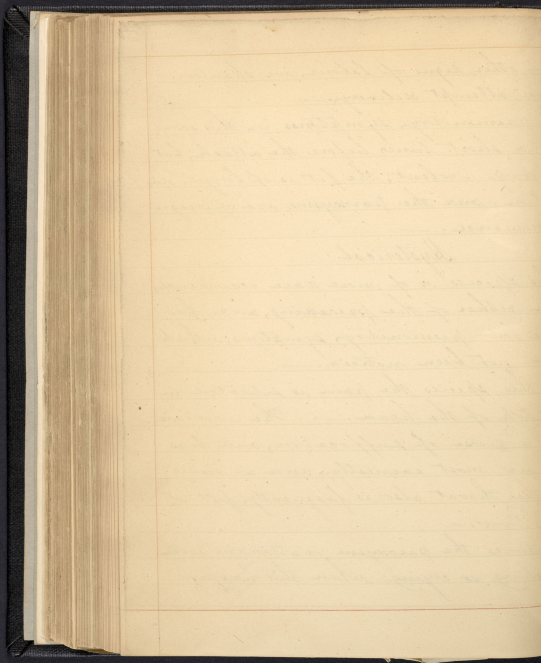
The premonitory symptoms in this occur but a short time before the attack, but are very violent; the fit is of longer duration, and the paroxysms are of irregular recurrence. —

Hysterical

This species is of more rare occurrence, than either of the preceding, and has some few premonitory symptoms, which have not been noticed. —

In this species the pain is situated in the top of the head. — The woman has a sense of suffocation, and begs for air most earnestly, and a rising in the throat also is frequently felt at this time. —

Sometimes the paroxysm is attended with laughing, or crying: when this happens



we cannot mistake the disease. —

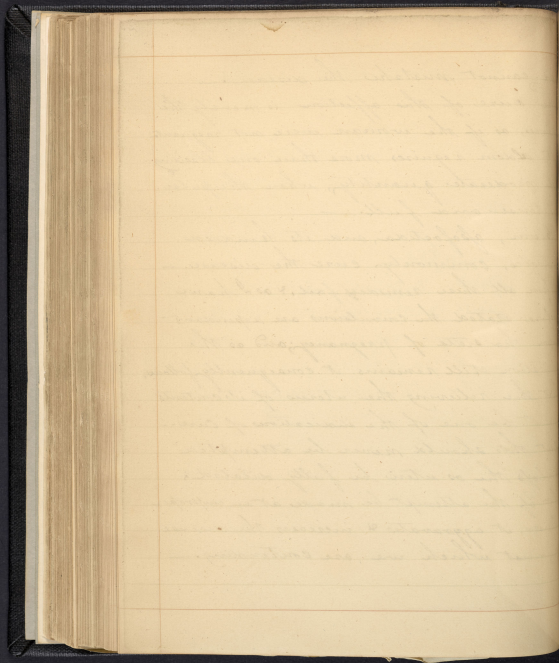
The cure of this affection is nearly the same, as if the woman were not pregnant.

It seldom requires more than one bleeding of moderate quantity, when the pulse is tense and full. —

Opium, spasmodica, and its kindred articles, commonly cure the disease. —

When all these remedies fail; & as I have before stated the convulsions are dependant upon the state of pregnancy; and as the irritation still remains. it consequently follows, that the relieving the uterus of its contents must be one of the indications of cure. —

But this should never be attempted unless the os uteri be fully dilated; for if the attempt be made at an improper time, it aggravates & increases the disease against which we are contending. —



Vol. 1
An
Essay
on
Puerperal Fever
by
George Mayhew
of Portland
Sauden So. Ca.

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